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ABSTRACT

In this study, student liberalism is examined longitudinally to determine whether it changes as the result of being exposed to different educational environments. The effect of college on liberalism and the relative efficacy of different measures of the college environment are also addressed. The main focus is on the effect of student peers. Data were drawn from the 1983 Cooperative Institutional Research Program survey sponsored by the American Council on Education and the University of California at Los Angeles Higher Education Research Institute. Results indicate that the effect that college has upon liberalism appears to be due to socialization effects. Effects commonly attributed to the educational process may in fact be due to social forces that exist outside of college, suggesting that many of the findings related to affective student outcomes may need to be reexamined. While it is possible that changes in liberalism are due to cognitive or psychodynamic changes in students, these results indicate that involvement in different social systems affects liberalism differently. Colleges may not directly affect student values, yet bring students of different values together. Instead of developing and promoting values among students, colleges may simply serve as forums that reinforce generally held social values. Researchers may need to try to integrate more proximal measures of student experiences. By relying on structural characteristics to measure the college environment, they are adopting an imprecise frame of reference for interpretation. It is concluded that while college promotes liberalism, the effect is neither large nor universal, and college may now have a moderating rather than liberalizing effect. Contains 28 references. (SM)

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College Impact and Student Liberalism Revisited: The Effect of Student Peers

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College Impact and Student Liberalism Revisited: The Effect of Student Peers

The relationship between education and political and social liberalism has been described as "one of the most stable and consistent findings in empirical social research of contemporary American society" (Weil, 1985, p. 458). In addition to numerous sociological studies documenting a positive relationship between educational attainment and liberalism (see for example Lipset, 1981; Hyman, Wright, and Reed, 1975; Hyman and Wright, 1978), college impact researchers have repeatedly found that college tends to promote liberalism, although not universally or uniformly (Astin, 1977; Bowen, 1977; Feldman and Newcomb, 1969a; Trent and Medsker, 1969).

What is the origin of this relationship? While explanations ranging from cognitive-psychodynamic changes in students (education promotes the ability to tolerate diversity, one form of liberalism) to the expression of class interests have been given, socialization is one of the most commonly accepted (Weil, 1981). In essence, socialization theory suggests that rather than being a direct effect of education, this relationship is caused by the emphasis placed on liberalism by the primary agents of campus socialization—students and faculty.

If socialization theory is correct, it may be that education no longer promotes liberalism. Dramatic changes have occurred in social and political values (and possibly the philosophy informing liberalism—see DeMott, 1988) since the 1960s and 1970s, when many of the pioneering college impact studies were conducted. Conservative values are prominent, perhaps even stylish, as demonstrated by the recurring question of whether liberal ideas are in the American social and political 'mainstream.' If students and faculty have been at all affected by these changes, it seems likely that there will be less positive emphasis placed on liberalism.

These changes, coupled with the stability of previous research findings, make it an opportune time to reexamine the relationship between education and liberalism. However, in order to determine whether the socializing effect of a student's peers is the determinant of education's effect on values, changes in liberalism must be directly linked to aspects of the student's college experience. This necessity raises an issue related to the methods researchers use to measure the college environment. These issues are addressed in the next section, with a special focus on the effect these measures may have on the study of college outcomes related to socialization processes.

Measuring the College Environment

As Feldman and Newcomb (1969a, p. 69) have noted, the fundamental question of college impact research is *Under what conditions do what kinds of students change in what kinds of ways?* These *conditions*, the aspects of the college environment that affect student experiences, are critically important in student outcomes research for they provide researchers with an "interpretive frame of reference" with which to explain any observed outcome changes (Astin, 1970b, p. 448). Thus, the way in which researchers conceptualize and measure the college environment alters this frame of reference, thereby influencing researchers interpretations and inferences.

For example, the structural characteristics of colleges and universities are often used as a measure of the college environment. While student outcomes are sometimes related to these measures, they are far removed from student experiences. Research has shown that the effect of structural characteristics are usually indirect, coming as the result of influencing aspects of the college environment that directly affect student outcomes, such as "the degree of integration or involvement in the institution's social and academic systems" (Pascarella, 1985, p. 657). Thus, the more 'proximal' aspects of student experiences an environmental measure can take into account, the better. This desire to measure proximal aspects of student experiences can be seen in the evolution of college environmental measures.

Early researchers measured the college environment implicitly by using the dichotomy of attending versus not attending college as the treatment[1] under study (Trent and Medsker, 1968). In this design, student experiences are not directly measured but assumed to differ from the experiences of those not attending college. Recently, researchers have focused directly on differences in experience that vary as a function of magnitude of exposure (involvement) to different environments within and between institutions (Astin, 1977). In the absence of a traditional "control group" with which to compare observed changes in student outcomes, these researchers argue that "if certain outcomes are facilitated by the experience of attending college, the likelihood of such outcomes should be greatest for those students who have the greatest exposure to the college environment" (Astin, 1977, p. 19).

This discussion is not introduced to suggest that one method is inherently superior to the other but rather, to underscore that the way in which researchers conceptualize the college environment forces them to ask different questions. Studies that employ a quasi-experimental variant of the traditional control group design (e.g., Trent and Medsker, 1969) can only focus on a basic question, i.e., How does college impact students? Focusing on subenvironments would be

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[1]Treatment is used in the generic sense (i.e., referring to a condition, experience, etc., under study) as opposed to the experimental sense (Campbell and Stanley, 1963).

inappropriate since colleges offer experiences (i.e., Greek organizations, intercollegiate athletics, etc.) that simply do not exist elsewhere.[2]

Studies in the tradition of Astin (1970a; 1970b, 1977) typify most current impact research, and rely on exposure to the college environment to assess college impact. In it, exposure/involvement is usually operationalized as student interactions with programs (i.e., honors programs, athletics, residence halls), extra-curricular activities (i.e., Greek groups, student organizations, student government) and ideas (i.e., major or academic emphasis) formally and informally associated with the college. Thus, involvement-based environmental measures help describe student experiences by marking and emphasizing institutional subenvironments and student subcultures (Bowen, 1977; Feldman, 1972; Newcomb and Wilson, 1966).

While involvement measures more closely describe student experiences than do those derived from institutional structural characteristics, they are limited since they measure socialization effects implicitly: They focus on the forums in which socialization occurs, rather than on the normative messages that are exchanged in them (see for example Wilder, Hoyt, Surbeck, Wilder, and Carney, 1985; Schrager, 1986).

In order to directly measure the effect of socialization it would seem imperative to consider the interactions students have with campus socialization agents as well as the normative messages they provide (Newcomb and Wilson, 1966). Involvement measures, in addition to marking the subenvironments a student comes into contact with, provide a general index of a student's immersion in the campus social environment.[3] While the normative messages of campus socialization agents are both expansive and complex, it is possible to approximate subsets of these messages. For example, an issue-specific subset of the peer environment can be roughly approximated by focusing on a single value issue and taking into account the values and beliefs of a college's entering freshman class. Thus, by measuring the college environment with the normative messages that a student is likely to come into contact with, this environmental measure

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[2]While some college experiences have comparable extra-college counterparts (i.e., participation in student government versus participation in civic government), studying the effect of these is problematic for they would seemingly yield uninterpretable results due to confounding treatments. For example, when significant attitudinal differences arise between sorority members and non-college women four years after high school is it due to the effect of college, the sorority, or a combination of the two?

[3]The size of many colleges makes the task of precisely identifying a student's social environment nearly impossible at even modestly sized institutions. For example, Rossi (1966. p. 205) proposes that social environments can be precisely identified by providing each student "with a complete listing of every individual in that population, [and] asking him to designate the ones with whom he is in contact and how frequently the contact occurs."

represents an improvement over the structural measures by more directly describing student experiences commonly used to define college environments.

The Research Questions

As suggested by the discussion above, two major issues were addressed as part of this study. First, student liberalism was examined longitudinally to determine whether it changes as the result of being exposed to different educational environments, as suggested by the college impact literature. Additionally, student liberalism was expected to generally be higher four years after entering college than upon entry into college.

The second major issue addressed concerns the effect of college on liberalism and the relative efficacy of different measures of the college environment. Changes in student liberalism are expected to vary as a function of the college environment. Environmental measures that describe proximal aspects of student experiences are expected to be empirically superior to those, such as structural characteristics, that are only distally related to student experiences. With respect to the last hypothesis, a newly constructed measure of the student's social environment is of particular interest (see below).

Although a college's socialization agents include faculty and students, this study will focus solely on the latter. While faculty normative messages are important, these messages are generally confined to the classroom due the limited amounts of student-faculty interaction outside of the classroom. Since even full-time students spend the majority of their time outside of the classroom, it seems likely that the majority of normative messages students receive while on campus come from peers.

Method

The data were drawn from the 1983 Cooperative Institutional Research Program (CIRP) survey sponsored by the American Council on Education and UCLA Higher Education Research Institute (HERI). The CIRP freshman survey program annually collects a broad array of background information from full-time students attending college for the first time. A nationally representative sample of 1983 CIRP participants was selected to be part of a follow-up survey (FUS) in the Summer of 1987, yielding responses from approximately 3,900 students. (Detailed methodological information on CIRP are discussed in Astin, Green, Korn and Maier, 1983; on FUS in Astin, Green, Korn, Schalit, Dey, and Hurtado, 1988).

Variables

Nine items related to liberalism (eight belief items and a political self-characterization item) from the 1983 CIRP survey that were repeated on the 1987 FUS instrument were used to develop

the dependent variable used in this study. In order to confirm that the selected items (coded: 1 ['Disagree Strongly'] to 4 ['Agree Strongly']) were in fact related to liberalism (coded: 1 ['Far Right'] to 5 ['Far Left']), the belief items were correlated with the political view which explicitly labeled the liberal response. As shown in Table 1, the item correlations, while small, are correlated in a logical direction with the political view item.

Prior to constructing a liberalism scale from these variables, a factor analysis was used to study the stability of the relationship among the selected variables. A separate factor analysis was performed for the 1983 and the 1987 liberalism items. Using the principal components method, factors with eigenvalues greater than unity were extracted. Extracted factors were rotated using the OBLIMIN technique. Tables 2 and 3 show the factor patterns resulting from those analyses.

Individual autonomy, reflecting support for freedom of choice on behavioral issues concerning the individual, was the first and strongest factor to emerge. The second factor, social control, expresses support for conservative views and roles. The third factor is one of political liberalism, representing traditionally liberal views on political and social issues. The direction and magnitude of the item loading for each factor are quite similar in the two years, showing that a fundamental change in the relationship between liberalism items has not occurred.

A liberalism scale was constructed by summing the responses to each of the nine items. The strongest liberal response for each item (i.e., 'Strongly agree' for the belief items or 'Far Left' for political views) was assigned a value of +2 while the next strongest liberal response (i.e., 'Agree Somewhat' or 'Liberal') was given a +1. Conservative responses were assigned negative numbers using the same schema. 'Middle of the Road' responses to the political view item was assigned a zero. Cases with missing responses to any of the items used to construct the liberalism scale[4] in either survey year were deleted from the analysis, reducing the sample size to 3,240 respondents.

The peer environment was operationalized by calculating a liberalism score for each college represented in the sample. The college liberalism score was calculated by averaging the liberalism scale scores for all freshman survey respondents, excluding cases with missing data. Since colleges represented in the FUS come from the CIRP normative population, the institutional

[4]Three multiple regression analyses were performed to determine if student characteristics influenced the number of responses to the eighteen liberalism items. Regressing the number of valid responses to (1) the nine CIRP items, (2) the nine FUS items, and (3) the CIRP and FUS items combined on over 50 student background variables uncovered no systematic pattern that might lead to bias ($p < .01$).

liberalism score is based on the views held by a majority of freshmen[5] entering school in 1983, thereby approximating a subset of the normative messages students are likely to come into contact with on campus when interacting with fellow freshmen. Colleges were classified by dividing the range of aggregated college liberalism scores into quintiles and dummy coded for use in multiple regression analyses.

Data Analysis

A matched pairs t-test was performed on the 1983 and 1987 liberalism scale scores in order to test the hypothesis concerning the change in student liberalism over time. Multiple regression analysis was used to examine the relationship between measures of the college environment and student liberalism. A blocked stepwise regression was run to predict student self-assessment of liberalism four years after entering college. Independent variables were entered into the regression equation by their temporal sequence, a procedure suggested by Astin (1970a, 1977) for studying college impact.

Several sets of independent variables were used. The first set, representing student input characteristics are found in Table 4. Various aspects of the college environment were operationalized in three additional sets of predictor variables. Table 5 shows the variables, activities while in college and major field, used as proximal measures of student experiences and involvement. The structural and peer environmental variables used in this study are found in Table 6.

Results and Discussion

Changes in Student Liberalism

Strength of liberalism. Given previous findings reported in the college impact literature, it was hypothesized that student liberalism would increase between freshman and senior year. As predicted, the 1987 liberalism score (Mean = 3.39, SD = 5.49) was larger than the 1983 liberalism score (Mean = 2.21, SD = 5.89). While this difference is statistically significant ($t(3262), = 12.62, p<.001.$), it does not appear to be especially large.

Compared with the average effect sizes (ES) reported for studies concerning political, economic, and social liberalism (Feldman and Newcomb, 1969b, Summary Table 2D) the current effect size is moderate, at best. The mean effect size for the studies reported by Feldman and

[5]To be included in the normative population students must return CIRP questionnaires at a rate judged to be representative: 85% of students entering a four-year college, 75% entering a university, and 50% entering a two-year college (Astin, Green, Korn and Maier, 1983).

Newcomb (Mean ES = .63, SD = .49) is nearly three times as large as that found in the current study (ES = .21)[6]. Thus, we may tentatively conclude that while education still promotes liberalism, its effect may not be quite as strong as it has been in the past.

That this relationship is weaker now than in the past may be evidence that socialization processes help to explain the relationship under study. Political liberalism has declined markedly among college freshmen since 1970 (Astin, Green, and Korn, 1986). This decline has been accompanied not by an increase in conservative youth, but by an increase in the number of self-declared political moderates. Assuming a socialization effect exists, a large number of moderates would tend to promote moderate viewpoints, thus limiting any effect regardless of direction (i.e., conservative or liberal). Strengthening the plausibility of this interpretation is Weil's finding that the strength of the education-liberalism relationship "rose to a strong point between the mid-1960s and the mid-1970s and then fell again" (1985, p. 467).

College Impact on Student Liberalism

While the changes in liberalism are slight, they nonetheless exist. In order to determine which aspects of the college environment are most closely associated with these changes, a multiple regression analysis was performed. As noted above, several classes of environmental measures were used (i.e., structural, involvement, and peer environment) in order to study their relative efficacy. The results of this regression analysis are reported in Tables 7 and 8.

As Table 7 indicates, fourteen 1983 student characteristics were significant predictors of 1987 liberalism ($p <= .001$.). As expected, the student's 1983 liberalism score was the single best predictor of liberalism in 1987 accounting for nearly 85 percent of the variance explained by student input characteristics. Life goals were also significant predictors of 1987 liberalism, with the desire to have administrative responsibility for others' work being a negative influence on liberalism while wanting to promote racial understanding exerting a positive influence. It is also interesting to note the effect religion has on liberalism: Attending religious services or meetings promotes conservativism as does not identifying with an established religion.[7]

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[6]Glass (1976, 1981) has developed a statistic for use with meta-analysis that is a measure of effect size (ES). The ES statistic is comparable to a z-score and can interpreted similarly (Carlberg and Kavale, 1980). For the purposes of this study, ES is calculated as

$$ES = \frac{\text{Mean Senior Liberalism - Mean Freshman Liberalism}}{\text{Standard Deviation of Freshman Liberalism}}$$

Thus, the senior group is treated as the experimental group, the freshman as the control.

[7]Respondents were asked to choose from: Protestant, Catholic, Jewish, Other, or None. Interpreting the effect of religion is somewhat problematic. Different editions of the CIRP have

After controlling for student input characteristics, eight environmental variables were significant predictors of 1987 liberalism. As indicated in Table 8, none of these variables are related to an institution's structural characteristics. Rather, they speak to the importance of the campus social system in helping to determine a student's value orientation. As with students' pre-college characteristics, religious participation and interest in pursuing success in business fields are negative predictors of liberalism. In addition, attending an institution whose freshman class average is in the lowest quintile of liberalism is a negative predictor of liberalism, thus indicating the importance of taking into account normative influences within an institution. Positive predictors of liberalism were student activism and hedonism (smoking cigarettes; drinking wine or liquor), indicating the possibility that different types of students react differently to campus subcultures.

A regression analysis was performed to assess the relative contribution of student characteristics and the college environment to predicting liberalism in 1987. Since student characteristics are correlated with environmental characteristics and variance shared between input and environmental characteristics is attributed only to input characteristics, Astin's (1970a) IEO model underestimates the 'true' effect of the environment (see Feldman and Newcomb, 1969). Controlling for input characteristics provides a lower-bounds estimate of environmental effects. An upper-bounds estimate is obtained by regressing liberalism on the significant environmental variables (see Table 9). This analysis shows that between ten and thirty percent of the explained variance in 1987 liberalism is due to various aspects of the college environment.

Conclusions and Implications

Given that the effect that college has upon liberalism appears to be due to socialization effects, these results call into question traditionally held notions about how college affects the values of students. Effects that have been commonly attributed to the educational process may in fact been due to social forces that exist outside of college. In essence, colleges and universities may have been taking the credit (or the blame) for relationships that were correlational, not causal.

In addition, this research points to the need to re-examine many of the findings related to affective student outcomes. The open nature of the higher education system makes it difficult to statistically control for powerful external social influences. Given this, until researchers develop

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variations in wording on religious preference. Student responses to these items suggests that some respondents who will identify themselves as being members of Protestant denominations (i.e., Baptist, Methodist, Presbyterian, etc.) will not identify themselves as Protestants, preferring instead to identify themselves as 'Other'.

more direct measures of student subcultures it is possible that social changes will have profound, yet unrecognized, effects on student outcomes.

While it is possible that change in liberalism is due to cognitive or psychodynamic changes in students (i.e., an increased ability to tolerate diversity), these results indicate that involvement in different social systems affects liberalism differentially. Thus, if psychodynamic forces are at work it is by mediating socialization's effect on liberalism rather than by promoting liberalism directly. Additionally, these results suggest colleges may not directly affect student values, yet bring students of different values together. Instead of developing and promoting values among students, colleges may simply serve as forums that reinforce generally held social values. If this is the case, it may be difficult for colleges to actively promote changes in the social values of students.

This study also shows that researchers should attempt to integrate more proximal measures of student experiences. By relying on structural characteristics to measure the college environment, researchers are adopting an imprecise frame of reference for interpretation. In doing so, researchers underestimate the true effects of college environments. Feldman and Newcomb (1969, p. 8) recognized that average change obscures both the amount and direction of individual changes—researchers risk similar problems when relying upon structural environmental measures.

Finally, these analyses indicate that while college promotes liberalism, this effect is neither large nor universal. While Feldman and Newcomb (1969) report that most studies indicate changes occur in both directions (i.e., liberal to conservative as well as conservative to liberal), the net amount of change has typically been in the liberal direction. Currently, the net change in favor of liberalism is only about one-third the size reported in studies conducted between 1938 and 1968. This smaller effect size can be interpreted as result of tremendous shifts toward moderate political views (Green and Astin, 1985). In essence, college may now have a moderating, rather than liberalizing effect.

Limitations of the Study

It is not clear what possible effects the instrument used to collect data might have on the results. In addition to concerns regarding the reliability of the items used as part of the CIRP, there is a very real possibility that the results are influenced by the order of the items on the survey instrument itself. Schuman and Presser (1981) show that numerous contextual factors, the most pertinent here being item ordering effects, can affect responses to survey items. The possibility that such effects occur is increased given that the Student Information Form (used to collect student data upon entry into college) and the FUS instrument are ordered differently and administered in different ways.

A second, and perhaps more important limitation, is that the peer environment measure is a very rough approximation of the normative messages a student might experience. While this measure does represent an improvement over structural measures, it is not so sensitive as to account for subenvironmental variations in liberalism, i.e., student subcultures at individual campuses.

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Table 1
Liberalism item correlations

Item	Mean	Std Dev	Correlation with 1983 POLITICAL View	Correlation with 1987 POLITICAL View
ABORTION SHOULD BE LEGALIZED (1983)	2.51	1.11	.11	.19
ABORTION SHOULD BE LEGALIZED (1987)	2.67	1.13	.13	.26
BUSING OK TO ACHIEVE BALANCE (1983)	2.42	.90	.08	.12
BUSING OK TO ACHIEVE BALANCE (1987)	2.28	.83	.13	.19
INCREASE MILITARY SPENDING (1983)	2.18	.96	- .18	- .26
INCREASE MILITARY SPENDING (1987)	1.87	.85	- .14	- .32
MARIJUANA SHOULD BE LEGALIZED (1983)	1.83	.94	.12	.17
MARIJUANA SHOULD BE LEGALIZED (1987)	1.78	.92	.11	.21
MARRIED WOMEN BEST AT HOME (1983)	1.82	.94	- .08	- .12
MARRIED WOMEN BEST AT HOME (1987)	1.45	.77	- .08	- .15
NAT HEALTH CARE PLAN NEEDED (1983)	2.62	.88	.13	.15
NAT HEALTH CARE PLAN NEEDED (1987)	2.67	.88	.14	.26
PROHIBIT HOMOSEXUAL RELATIONS (1983)	2.48	1.04	- .12	- .19
PROHIBIT HOMOSEXUAL RELATIONS (1987)	2.07	1.01	- .13	- .27
SEX OK IF PEOPLE LIKE EACH OTHER (1983)	2.35	1.02	.08	.12
SEX OK IF PEOPLE LIKE EACH OTHER (1987)	2.34	.99	.10	.20
POLITICAL ORIENTATION (1983)	3.04	.71	1.00	.32
POLITICAL ORIENTATION (1987)	3.02	.78	.32	1.00

Table 2
1983 Factor Pattern and Factor Correlations

Item	Factor I	Factor II	Factor III
SEX OK IF PEOPLE LIKE EACH OTHER	.80		
ABORTION SHOULD BE LEGALIZED	.71		
MARIJUANA SHOULD BE LEGALIZED	.70		
MARRIED WOMEN BEST AT HOME		.70	
PROHIBIT HOMOSEXUAL RELATIONS		.69	
INCREASE MILITARY SPENDING		.57	
NAT HEALTH CARE PLAN NEEDED			.68
BUSING OK TO ACHIEVE BALANCE			.66
POLITICAL ORIENTATION			.50
Factor Correlations			
I	1.00		
II	.06	1.00	
III	-0.01	.08	1.00

Table 3
1987 Factor Pattern and Factor Correlations

Item	Factor I	Factor II	Factor III
SEX OK IF PEOPLE LIKE EACH OTHER	.80		
ABORTION SHOULD BE LEGALIZED	.66		
MARIJUANA SHOULD BE LEGALIZED	.73		
MARRIED WOMEN BEST AT HOME		.71	
PROHIBIT HOMOSEXUAL RELATIONS		.74	
INCREASE MILITARY SPENDING		.54	
NAT HEALTH CARE PLAN NEEDED			.72
BUSING OK TO ACHIEVE BALANCE			.63
POLITICAL ORIENTATION			.46
Factor Correlations			
I	1.00		
II	.14	1.00	
III	.07	.13	1.00

Table 4
Input Variables

ITEM
1982 ACT: WROTE A COMPUTER PROGRAM
1982 ACT: PLAYED MUSICAL INSTRUMT
1982 ACT: ATTENDED RELIGIOUS SVC
1982 ACT: SMOKED CIGARETTES
1982 ACT: TOOK VITAMINS
1982 ACT: DEMONSTRATED
1982 ACT: TOOK TRANQUILIZING PILL
1982 ACT: WORE GLASSES-LENSES
1982 ACT: TOOK COURSE ON TV
1982 ACT: TOOK CAI COURSES
1982 ACT: ATTENDED RECITAL-CONCERT
1982 ACT: TOOK SLEEPING PILLS
1982 ACT: JOGGED
1982 ACT: OTHER VIGOROUS EXERCISE
1982 ACT: STAYED UP ALL NIGHT
1982 ACT: DRANK BEER
1982 ACT: WORKED IN POL CAMPAIGN
1982 ACT: OVERSLEPT & MISSED CLASS
1982 ACT: NOT COMPL HOMEWK ON TIME
AGE OF STUDENT
HIGHEST DEGREE PLANNED ANYWHERE (1983)
TYPE OF HIGH SCHOOL ATTENDED
MILES FROM COLLEGE TO HOME
FATHER'S EDUCATION
FATHER'S RELIGION
MOTHER'S RELIGION
STUDENT'S RELIGION
EXPECTATION: CHANGE MAJOR FIELD
EXPECTATION: CHANGE CAREER CHOICE

EXPECTATION: FAIL ONE OR MORE COURSES
EXPECTATION: GRADUATE WITH HONORS
EXPECTATION: BE ELECTED TO STUD OFFICE
EXPECTATION: GET JOB TO PAY EXPENSES
EXPECTATION: WORK FULL-TIME DURING COLL
EXPECTATION: JOIN FRAT-SORORITY CLUB
EXPECTATION: LIVE IN CO-ED DORMITORY
EXPECTATION: PLAY VARISTY ATHLETICS
EXPECTATION: ELECTED TO ACAD HONOR SOC
EXPECTATION: MAKE AT LEAST B AVERAGE
EXPECTATION: NEED EXTRA TIME FOR DEGREE
EXPECTATION: GET TUTORING
EXPECTATION: WORK OUTSIDE DURING COLL
EXPECTATION: SEEK VOC COUNSELING
EXPECTATION: SEEK IND COUNSELING
EXPECTATION: GET BACHELOR'S DEGREE
EXPECTATION: PARTICIPATE IN PROTESTS
EXPECTATION: DROP OUT TEMPORARILY
EXPECTATION: DROP OUT PERMANENTLY
EXPECTATION: TRANSFER BEFORE GRADUATING
EXPECTATION: BE SATISFIED HERE
EXPECTATION: FIND JOB IN OWN FIELD
EXPECTATION: GET MARRIED IN COLLEGE
EXPECTATION: GET MARRIED 1 YR AFT COLL
ACHIEVE IN A PERFORMING ART (1983)
BECOME AUTHORITY IN OWN FIELD (1983)
OBTAIN RECOG FROM COLLEAGUES (1983)
INFLUENCE POLITICAL STRUCTURE (1983)
INFLUENCE SOCIAL VALUES (1983)
RAISING A FAMILY (1983)
HAVE ADMIN RESPONSIBILITY (1983)
BE VERY WELL OFF FINANCIALLY (1983)
HELP OTHERS IN DIFFICULTY (1983)
MAKE THEORETICAL CONTRIBUTION (1983)
WRITE ORIGINAL WORKS (1983)

CREATE ARTISTIC WORKS (1983)
BE SUCCESSFUL IN OWN BUSINESS (1983)
BECOME INVOLVED IN ENVIRONMENT (1983)
DEVELOP MEANINGFUL PHILOSOPHY (1983)
PARTICIPATE IN COMMUNITY PROGRAM (1983)
PROMOTE RACIAL UNDERSTANDING (1983)
KEEP UP WITH POLITICAL AFFAIRS (1983)
HIGHEST DEGREE PLANNED AT THIS COLLEGE
AVERAGE HIGH SCHOOL GRADES
RACIAL COMPOSITION OF HIGH SCHOOL
ACADEMIC RANK IN HIGH SCHOOL
ESTIMATED PARENTAL INCOME
LIBERALISM PRE-TEST (1983)
MAJOR GROUP: AGRICULTURE (1983)
MAJOR GROUP: BIOLOGICAL SCIENCES (1983)
MAJOR GROUP: BUSINESS (1983)
MAJOR GROUP: EDUCATION (1983)
MAJOR GROUP: ENGINEERING (1983)
MAJOR GROUP: ENGLISH (1983)
MAJOR GROUP: HEALTH PROFESSIONS (1983)
MAJOR GROUP: HISTORY/POLI SCI (1983)
MAJOR GROUP: HUMANITIES (1983)
MAJOR GROUP: FINE ARTS (1983)
MAJOR GROUP: MATHEMATICS/STATISTICS (1983)
MAJOR GROUP: PHYSICAL SCIENCES (1983)
MAJOR GROUP: SOCIAL SCIENCES (1983)
MAJOR GROUP: OTHER TECHNICAL (1983)
MAJOR GROUP: OTHER NON-TECHNICAL (1983)
MAJOR GROUP: UNDECIDED (1983)
STUDENT'S MARITAL STATUS
MOTHER'S EDUCATION
RACIAL COMPOSITION OF NEIGHBORHOOD
WHITE/CAUCASIAN (1983)
BLACK/NEGRO/AFRO-AMERICAN (1983)
AMERICAN INDIAN (1983)

ASIAN-AMERICAN/ORIENTAL (1983)
MEXICAN-AMERICAN/ CHICANO (1983)
PUERTO RICAN-AMERICAN (1983)
OTHER RACE (1983)
ACADEMIC ABILITY (1983)
ARTISTIC ABILITY (1983)
DRIVE TO ACHIEVE (1983)
LEADERSHIP ABILITY (1983)
MATH ABILITY (1983)
POPULARITY (1983)
POPULARITY WITH OPP SEX (1983)
PUBLIC SPEAKING ABILITY (1983)
INTELLECTUAL CONFIDENCE (1983)
SOCIAL CONFIDENCE (1983)
WRITING ABILITY (1983)
REASON FOR COLL: PARENT'S HOPE
REASON FOR COLL: UNEMPLOYED
REASON FOR COLL: AWAY FROM HOME
REASON FOR COLL: GET A BETTER JOB
REASON FOR COLL: GAIN GENERAL ED
REASON FOR COLL: IMPROVE STUDY SKILLS
REASON FOR COLL: NOTHING BETTER TO DO
REASON FOR COLL: BE MORE CULTURED
REASON FOR COLL: MAKE MORE MONEY
REASON FOR COLL: LEARN NEW THINGS
REASON FOR COLL: MEET NEW PEOPLE
REASON FOR COLL: PREP FOR GRAD-PROF SCH
STUDENT'S SEX (1983)

Table 5
Involvement Variables

ITEM
COLL ACT: ENROLLED IN HONORS PROGRAM
COLL ACT: MEMBER OF FRAT OR SORORITY
COLL ACT: GOTTEN MARRIED
COLL ACT: FAILED A COURSE OR CLASS
COLL ACT: HAD PART-TIME JOB ON-CAMPUS
COLL ACT: HAD PART-TIME JOB OFF-CAMPUS
COLL ACT: HAD FULL-TIME JOB WHILE STUD
COLL ACT: IN CAMPUS DEMONSTRATIONS
COLL ACT: ELECTED TO STUDENT OFFICE
COLL ACT: WORKED IN POLITICAL CAMPAIGN
COLL ACT: HAD VOCATIONAL COUNSELING
COLL ACT: HAD PERSONAL COUNSELING
COLL ACT: WORKED ON PROF'S RES. PROJ.
COLL ACT: IN INTERCOLLEGIATE SPORTS
1986 ACT: JOGGED
1986 ACT: WORKED ON IND RESEARCH PROJECT
1986 ACT: GUEST IN PROFESSOR'S HOME
1986 ACT: SMOKED CIGARETTES
1986 ACT: BEEN LONELY OR HOMESICK
1986 ACT: CONFIDED IN FRIEND
1986 ACT: FELT DEPRESSED
1986 ACT: FELT OVERWHELMED
1986 ACT: STAYED UP ALL NIGHT
1986 ACT: COPIED HOMEWORK
1986 ACT: IN INTRAMURAL SPORT
1986 ACT: CHEATED ON QUIZ OR EXAM
1986 ACT: ATTENDED MUSICAL CONCERT
1986 ACT: MISSED CLASS BECAUSE OF ILLNES

1986 ACT: FELT LIKE LEAVING COLLEGE
1986 ACT: DIDN'T COMP HOMEWORK ON TIME
1986 ACT: DRANK BEER
1986 ACT: DRANK WINE OR LIQUOR
MILES FROM COLLEGE TO HOME
HOURS/WEEK: ATTENDING CLASSES OR LABS
HOURS/WEEK: STUDYING OR DOING HOMEWORK
HOURS/WEEK: SOCIALIZING WITH FRIENDS
HOURS/WEEK: TALK W/FACULTY OUTSIDE CLASS
HOURS/WEEK: EXERCISING OR SPORTS
HOURS/WEEK: USING A PERSONAL COMPUTER
HOURS/WEEK: PARTYING
HOURS/WEEK: WORKING (FOR PAY)
HOURS/WEEK: VOLUNTEER WORK
HOURS/WEEK: STUDENT CLUBS OR GROUPS
HOURS/WEEK: WATCHING TV
HOURS/WEEK: COMMUTING TO CAMPUS
HOURS/WEEK: RELIGIOUS SERVICES/MEETINGS
HOURS/WEEK: HOBBIES
YEARS ENROLLED FULL-TIME
YEARS ENROLLED PART-TIME
YEARS LIVING ON-CAMPUS
YEARS LIVING 0FF-CAMPUS
YEARS LIVING AT HOME

Table 6
Structural Measures of the Environment

ITEM
MAJOR GROUP: AGRICULTURE (1987)
MAJOR GROUP: BIOLOGICAL SCIENCES (1987)
MAJOR GROUP: BUSINESS (1987)
MAJOR GROUP: EDUCATION (1987)
MAJOR GROUP: ENGINEERING (1987)
MAJOR GROUP: ENGLISH (1987)
MAJOR GROUP: HEALTH PROFESSIONAL (1987)
MAJOR GROUP: HISTORY/POLI SCI (1987)
MAJOR GROUP: HUMANITIES (1987)
MAJOR GROUP: FINE ARTS (1987)
MAJOR GROUP: MATH OR STATISTICS (1987)
MAJOR GROUP: PHYSICAL SCIENCES (1987)
MAJOR GROUP: SOCIAL SCIENCES (1987)
MAJOR GROUP: OTHER TECHNICAL (1987)
MAJOR GROUP: OTHER NON-TECHNICAL (1987)
MAJOR GROUP: UNDECIDED (1987)
TYPE OF COLLEGE
GEOGRAPHIC LOCATION OF COLLEGE
COLLEGE SELECTIVITY
TYPE OF COLLEGE
AVERAGE LIBERALISM OF COLLEGE (PEER ENVIRONMENT)

Table 7
Significant Student Input Variables

Variable	B	ß
1983 LIBERALISM SCALE	.50	.46
EXPECTATION: LIVE IN CO-ED DORMITORY	.43	.08
EXPECTATION: PARTICIPATE IN PROTESTS	.47	.06
HAVE ADMIN RESPONSIBILITY (1983)	- .52	- .07
WRITING ABILITY (1983)	.39	.05
1982 ACT: SMOKED CIGARETTES	.39	.03
ATTENDED DENOMINATIONAL HIGH SCHOOL	- .51	- .05
1982 ACT: DRANK BEER	.63	.07
STUDENT IS FEMALE	.77	.06
HIGHEST DEGREE PLANNED ANYWHERE (1983)	.20	.04
STUDENT RELIGION: OTHER	-1.09	- .05
1982 ACT: ATTENDED RELIGIOUS SVC	- .51	- .05
PROMOTE RACIAL UNDERSTANDING (1983)	.39	.05
MAJOR GROUP: OTHER NON-TECHNICAL (1983)	1.18	.05

Table 8
Significant Environmental Variables

Variable	B	ß
INPUTS (SEE TABLE 7)	.75	.46
HOURS/WEEK: RELIGIOUS SVCS/MTGS	-1.07	- .20
COLL ACT: IN CAMPUS DEMONSTRATIONS	1.59	.09
1986 ACT: ATTENDED MUSICAL CONCERT	.75	.07
CONSERVATIVE INSTITUTION (HIGHEST QUINTILE)	-1.28	- .08
1986 ACT: SMOKED CIGARETTES	.55	.05
1986 ACT: CONFIDED IN FRIEND	.54	.05
MAJOR GROUP: BUSINESS (1987)	- .92	- .06
1986 ACT: DRANK WINE OR LIQUOR	.53	.05

Table 9
Estimates of Effects

Source of Explained Variance	Percent of Explained Variance: Lower Bounds	Percent of Explained Variance: Upper Bounds
Student Input Characteristics	.38	—
Environmental Characteristics	.10	.29